

THE POMEGRANATE

Fruit of the Tree of Life

Medical research is now supporting the rich history, mythology and symbolism of the pomegranate with discoveries about the fruit's abundant antioxidants and nutrients and their benefits in health and healing.

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A garden of pomegranates

As a boy, my first experience with a pomegranate was with a neighbour's tree. We used to wait in anticipation for the pomegranates to ripen because then they made excellent hand grenades to throw at other boys from the other side of town. And "grenade" is literally right: this is the French name for a pomegranate. They would explode if you got a lucky shot, and hundreds of purple-red seeds would splatter the opponent with a near-indelible dye guaranteed to get the other boy into huge trouble at home.

Apart from this lowly pursuit, there was little use for the pomegranate in Australia in those days, and this ignorance continues pretty much to this day. What we didn't know then was that the rich reddish-purple juice of the pomegranate would later be found to carry much more than its indelible colour. It is now known to carry valuable natural phytochemicals in the form of super-antioxidants—much more, in fact, than in red wine and green tea combined. A look at the history, symbolism and recent medical discoveries relating to this mysterious fruit puts the pomegranate in a totally new light, particularly in terms of health.

Just the other day, as I was browsing in my local second-hand bookstore, I came across a rare book by Dr Israel Regardie called *A Garden of Pomegranates*.¹ Regardie, who died in 1985, is highly regarded as a modern occultist and historian of Western hermetic philosophies, and was responsible last century for a series of books revealing occult lore, particularly as it relates to the Qabalah. The central motif or symbolic structure in this ancient system of philosophical enquiry is the Tree of Life—in Regardie's words, "that most precious jewel of human thought, that geometrical arrangement of Names, Numbers, Symbols and Ideas..."

There are of course many symbolic links to the original Tree of Knowledge as described in so many myths, particularly in the Old Testament. Regardie was making a connection that has been made over and over again through the centuries—a connection between the fruit of the pomegranate tree and the oldest myths and symbols of philosophy and esoteric religion. In this case, he was referring to a book called *Pardes Rimmonim* in the old language, or *An Orchard of Pomegranates*, which was written by Rabbi Moses ben Jacob Cordovero in the 16th century. The good rabbi took this title from a versicle in the *Song of Songs*: "Thy plants are an orchard of pomegranates".

Regardie is considered by some as one of the greatest interpreters of the Qabalah, and he wrote that "...a veritable garden of the soul may be builded; ...wherein may be discovered by each one of us all manner and kind of exotic fruit and gracious flower of exquisite colour. The pomegranate, I may add, has always been for mystics everywhere a favourable subject for recondite symbolism."

Much of this symbolism, as we'll see below, refers to the deep respect given to this plant by many cultures at many times, including our own as more studies reveal the health-giving effects provided by this fruit that seems to be full of seed, full of life and full of potential.

A brief history of the pomegranate

Moving way back in time, we find the pomegranate celebrated in Egyptian papyri, cited in the Old Testament as *rimmon*, and appearing in Greek mythology, in Roman history and in the Koran. Well before the Christian era, pomegranates were introduced into China from Samarkhand. The pomegranate has appeared throughout history in some of

the greatest documents, art and architecture, from Homer and Chaucer to Shakespeare and Raphael and to Cézanne in more modern times.

It is generally agreed that the pomegranate originated in Persia, then found its way slowly to India, northern Africa, Europe, China and the Americas. It is one of the first of the cultivated fruits: by 3000 BC at least, and perhaps much earlier, there were gardens of grapes, olives, figs, dates, almonds and pomegranates in the valleys of the Tigris–Euphrates, the Nile and the Indus rivers.

The pomegranate's Tree of Life symbolism

The fruit is mentioned in various cultures and religions. The pomegranate tree is said to have flourished in the Garden of Eden and is very likely the "apple" of the Adam and Eve story in Genesis, produced from the mysterious Tree of Life.

It has always been a symbol of many virtues, including love and fertility in particular as well as health and abundance. The plentiful number of seeds (optimistically said to be up to 800 per fruit) suggested all these virtues and a spiritual dimension as well. The juice has been compared to blood, the fruit's shape has been likened to female breasts, and the obvious "crown" has suggested royal connections.

In that wonder of the world, the Hanging Gardens of Babylon, where strife-stricken Iraq now limps along, pomegranates featured strongly amongst the treasures of Nebuchadnezzar II. In this region formerly known as Mesopotamia, the pomegranate is still prized both as a medication and as a symbol of beauty, longevity, fertility and wisdom.

Greek and Persian mythologies mention the fruit as representing life, regeneration and marriage. Because of its role in the Greek legend of Persephone, the pomegranate came to symbolise fertility, death and eternity and was an emblem of the Eleusinian mysteries. The ancient Chinese believed the seeds symbolised longevity and immortality.

In the Hebrew tradition, pomegranates appear in many cultural and religious contexts. The pomegranate was used as a decorative symbol in the Temple of Solomon, in the regalia of kings and queens, and on the robes of priests. In fact, a thimble-sized ivory pomegranate bearing an ancient Hebrew inscription is the only relic ever recovered from Solomon's Temple.

According to JewishJournal.com, "The Talmud says that if a sage dreams of a pomegranate, it is an omen of wisdom; if an ignoramus dreams of one, it is an omen of good deeds. Jewish sages taught that the pomegranate is significant because, unlike other fruits, the red pulp, which is of primary interest to the human consumer but of little interest to the tree because it is only there to protect the seed, and the seed, which the consumer tends to throw away, are one and the same. The primary and the secondary, the future and the present part of the fruit are united. This, the sages tell us, represents a high level of blessing, a sign of totality and perfection, a perfect symbol of the New Year."²

The pomegranate fruit is a symbol of resurrection and life in Christianity, and in Christian art it symbolises hope. It is also one of the three "blessed fruits" of Buddhism.

So what is this unusual fruit?

The botanical name for the pomegranate is *Punica granatum*—*Punica* being the name of the former Phoenician city in northern Africa where Roman soldiers on their way to the first of the three Punic wars in the 3rd century BC first encountered the pomegranate tree; and *granatum* meaning "grained". Pomegranate is so named because it resembles an apple and has so many seeds. According to Hebrew legend, there are exactly 613 seeds per fruit, one for each of the Jewish commandments, but in the real world you will generally find at least 200 seeds and up to 800 in a very large fruit. Botanically, *Punica granatum* shares its family name only with its rare genetic forebear, *Punica protopunica*, whose habitat is restricted to the island of Socotra in Yemen.

The pomegranate tree or shrub grows 3–5 metres high and is distinguished by its fresh-green oval- or lance-shaped leaves, which fall in the winter. The fruit, which is ripe in about September in the northern hemisphere (and March in the southern hemisphere, if you can find any!), is apple-shaped, yellow-brown with a blush of red, and is surmounted by a hard crown-like calyx. On breaking the tough rind, you can see the white or pinkish or scarlet translucent fruits tightly packed together inside. The juicy seeds are sometimes sweet and sometimes somewhat acidic, depending on the variety, and may need sweetening before eating. The juice expressed from the seeds is made into a syrup for flavouring drinks, and in ancient days was made into wine.

Pomegranate fruit contains three main parts, and each part has its own metaphysical, botanical and chemical character. These parts are the seed or the "aril", the juice and the peel. What's more, the tree's bark, roots, leaves and flowers all contain specific and unique elements, and each one has interesting and complex effects when prepared as medicines for human or animal consumption.

Qualities of the tree and fruit

Pomegranates travelled well in Arabian caravans, which brought jewels and spices from the East and aromatic materials from Africa. As a sealed, self-wrapped fruit with a tannin-impregnated tough outer skin, they were well protected from the rigours of harsh travel and remained fresh for a surprisingly long time. Full of mineral- and vitamin-rich juice, they were great fare on arduous voyages, and thus moved easily around the ancient world, growing along and around the trade routes and beyond.

The pomegranate tree is very adaptable to different soils and tolerates very harsh conditions of heat, moisture-loss and neglect. Little wonder, then, that the ancient world was littered with pomegranate groves, and eventually wild trees were scattered far

Chemical Composition of Pomegranate Juice

Food Value per 100 g of Edible Portion*

Calories	63–78
Moisture	72.6–86.4 g
Protein	0.05–1.6 g
Fat	Trace only to 0.9 g
Carbohydrates	15.4–19.6 g
Fibre	3.4–5.0 g
Ash	0.36–0.73 g
Calcium	3–12 mg
Phosphorus	8–37 mg
Iron	0.3–1.2 mg
Sodium	3 mg
Potassium	259 mg
Carotene	None to trace
Thiamine	0.003 mg
Riboflavin	0.012–0.03 mg
Niacin	0.180–0.3 mg
Ascorbic acid	4–4.2 mg
Citric acid	0.46–3.6 mg
Boric acid	0.005 mg

* Analyses of fresh juice sacs made by various investigators (<http://www.hort.purdue.edu/newcrop/morton/pomegranate.html>).

and wide, with many of the old ones living to this day.

In a village on Menorca in the Mediterranean Balearic Islands, there was a single ancient pomegranate tree which just managed to provide one fruit or maybe two fruits per year in its old age. It must have arrived with the Phoenicians, relentless travellers and traders, who created overland and sea trade routes and controlled a large part of Mediterranean business in ancient times. It has been suggested the pomegranate tree can grow to anything from 200 years upwards in age, but records are hazy as to the exact age of this particularly ancient Menorcan tree.

Life force of the pomegranate

The question arises: "Why is the pomegranate so celebrated in myth, religion and history in so many cultures?" With references reaching back to the dawn of time and human existence in our very creation myths, and with so much scientific and medical interest being shown in the current era, it seems almost that this fruit is special beyond others, that it has been singled out as a gift to the human race.

Other questions arise. The pomegranate tree lives a very long time and, like the fruit, suffers almost no disease or damage by pests. Is this tree actually promoting its own health? Are its powerful antioxidants actually keeping the tree healthy, too? Why has the pomegranate, as opposed to other fruit, been selected by many cultures and religions to represent fertility, good health and good luck?

The writer of this article has developed skills in kinesiology and dowsing over many years of practice in natural therapies, and a test of some high-quality, wild-crafted, chemical-free Georgian pomegranate juice has shown a particularly powerful strength in the "life force" of the juice. This is only anecdotal, of course, but those who work with energies know how reliable these tests can be in revealing the "energetic" side of any substance.

In the end, we are always dealing with the human system as a "bio-field", or field of information or energy, which at the most fundamental level operates on energies of all qualities.^{3,4} In the final analysis, all the medications and foods we consume are consumed because we wish to incorporate the energetics of those substances into our energy fields. And it is the quality of the energetics of any substance that we consume that is of the highest importance.

I suggest that the pomegranate has always been recognised as a fruit which holds a particularly potent energetic charge. It is in the look of the fruit, the taste of the juice, the colour of the arils. Anyone who pays attention to what their senses (including more subtle senses) are telling them will soon know whether a substance will enhance their energy system or not. Naturally occurring pomegranates and their juice register high on the list of those substances which *do* enhance our energy system.

Renewed interest in the pomegranate in the USA

The venerable pomegranate is becoming decidedly trendy in recent times. In the USA in the last 18 months, over 475 new pomegranate food and beverage products were introduced according to the director of Datamonitor's Productscan Online. That is virtually an explosion of interest.

The book *Pomegranates: Ancient Roots to Modern Medicine*,⁵ recently published to showcase the research of N. Seeram and colleagues at the UCLA Center for Human Nutrition, makes the case for the renewed interest in the fruit. A study released by this group shows that drinking a glass of the juice daily can help to slow the effects of prostate cancer, allowing diagnosed men to live longer. They also suggest that menopausal and post-menopausal symptoms, including hot flushes, may be reduced by the phyto-oestrogen found in the pomegranate seed. Apparently, the pomegranate is one of only a few plants known to contain oestrogen-type compounds.

The same group also makes the important point that it is more healthful to drink a properly processed juice than to eat the fruit, due to the fact that 70 per cent of the antioxidants found in the juice are derived from the peel when the whole fruit is squeezed.

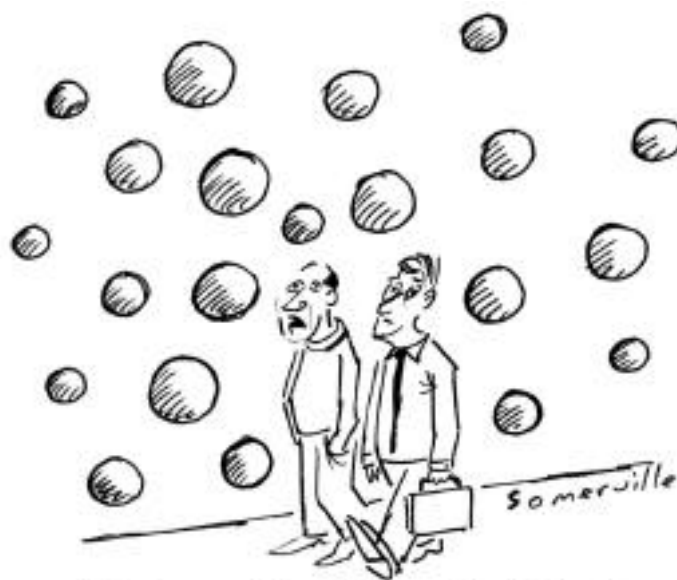
Even more interesting to some, perhaps, is the study which implies that the pomegranate functions as a "natural Viagra". The study measured the erectile function of rabbits, showing that a regular intake of pomegranate juice raises nitric oxide levels and

blood supply in a way similar to what is seen in those who take Viagra. Now, proof positive of this property would certainly add weight to the notion that the pomegranate is the Tree of Life!

But the interest goes much further. Today in the USA, you can find a chewing gum called Pomegranate Power and a pomegranate chicken sausage made by Jody Maroni's Sausage Kingdom in Los Angeles. At the 2006 Oscar award presentations, celebrities could be seen sipping martinis made from pomegranate juice (amongst other less healthful ingredients). Pomegranate is being used as an antioxidant additive in a brand of beauty products called Archipelago. The co-president of the company claims it is the most successful product they have ever released.

In the past three years, California has become the largest producer of pomegranates in the USA, thanks to the efforts of a Beverly Hills-based couple, Stewart and Lynda Resnick, who

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"Airborne particle pollution is bad today."

have created Pom Wonderful, a business devoted to the cultivation and promotion of pomegranates (the Wonderful variety exclusively). It is now the largest pomegranate growing and distribution company in America.⁶

Phytochemical content

Phytochemicals are simply chemicals which are derived from plants. In the last decade, a lot of interest has developed in these plants due to research uncovering the protective and healing effects of antioxidants, amongst other phytochemicals. It is interesting to note that plants, just like animals and humans, have developed methods to protect their own health from all the depredations of the environment. Because plants are not mobile, these defences come in the form of powerful chemicals, which also give the plants their colour, flavour, smell and texture. It is these very defences which give rise to the powerful chemicals that have proven useful to humanity and which promise much more than has yet been discovered.

A powerful plant such as the pomegranate literally offers for consumption a fruit which is a balanced and complex combination of many health-supporting compounds. It is also that very combination of compounds that may hold the secret to these effects, rather than extracts made of specific compounds which are isolated, such as ellagic acid⁷—although this extract is actually showing promising results in clinical trials.

Approximately 75 per cent of the world's medicines come from plants; thus there is a huge spectrum of chemicals and influences available to us from the plant kingdom. Among the beneficial phytochemicals there are many classifications. One subclass is known as the phenolics, which includes flavonoids, flavonals, catechins, isoflavones and phenolic acids. Each of the 5,000 phytochemicals in the flavonoid subclass alone is an antioxidant which helps strengthen the human immune system, heals the cardiovascular system and slows ageing.

In the former Soviet republic of Georgia, phytomedicines have developed a very respected reputation in recent decades due to the fact that they come from foraged "wild-crafted" sources, i.e., plants growing wild. These plants were once part of orchard systems which spread through the countryside. As a result, a lot of research has been concentrated on these medicinal plants, and in particular on the pomegranate. A small industry is being developed, with an eye on keeping the quality of harvesting and processing high. Much of the information presented below has been stimulated in part by the growth in interest in Georgian wild-crafted phytochemicals.

For more information on this as well as additional studies mentioned below, see W. Shafer Fox's *100 & Healthy – Living Longer with Phytomedicines from the Republic of Georgia*.⁸

Chemical composition

Most of the chemical analyses of pomegranates have focused on the juice, peel/pericarp and seed oil. The juice/fruit contains high amounts of hydrolysable tannins, in particular ellagitannins

(gallic acid and ellagic acid), anthocyanins (cyanidin, delphinidin, pelargonidin) as well as phenolic acids (ellagic acid, caffeic acid and chlorogenic acid). The pericarp is also high in hydrolysable tannins. (Note: The pericarp is the skin surrounding the seed, really the "aril". The seed is only the hard, white internal seed; the red juicy edible sacs, including the seed, are called arils.) Pressing the whole fruit results in juice that is much higher in the pericarp polyphenols.

Luteolin, quercetin, kaempferol and narigenin are also found in the peels. The seed oil consists of about 63.5 per cent punicic acid—a rare, 18-carbon *trans*-fatty acid (structurally related to conjugated linolenic acid). According to one source, the seed also contains the highest concentration of oestrone in the plant kingdom—approximately 17 mg/kg of dried seed.

Interest has been growing regarding the potential of pomegranate oil as a potent phyto-oestrogen and for its potential cancer-preventive properties especially with regard to breast cancer.

Medicinal history and research

Pomegranate juice has been used throughout history for a multitude of ills. Ancient Greek physicians used it as an anti-inflammatory, an anti-helminthic (for intestinal worms) and a cough suppressant. It was also used to treat chronic diarrhoea and dysentery. In Georgia, uses have included the treatment of mucus discharges, haemorrhages, night sweats and diarrhoea. It has been used to strengthen capillaries and help prevent atherosclerosis, asthma, tonsillitis and bronchitis. Pomegranate extract mixed with aloe vera extract has been used to activate bone regeneration. Work has also been done recently on its use as a successful treatment for burns.

• Ellagic acid versus cancer

What is most exciting in modern times is the discovery of extremely high quantities of the anticancer phenolic ellagic acid in pomegranates. The pomegranate is one of the world's greatest known sources of ellagic acid, a powerful antioxidant and anticancer phytochemical that has been described in more than 500 studies published in the last 40 years.

Dr Gary Stoner of Ohio State University has directed much research demonstrating ellagic acid's medicinal properties in relation to cancer. Many researchers are now on record with positive research relating to ellagic acid and cancer, in both rodents and human trials. A lot of work has been done on cervical and breast cancer. Dr Wendy Smith and her team at the University of Kentucky have shown that ellagic acid helps prevent the earliest chemical reactions that can lead to breast cancer. Dr Kim of South Korea's Pusan National University led a team of scientists from the US, Canada, UK and Israel that made powerful findings regarding the action of pomegranate phytochemicals on reduction of breast cancer proliferation and formation of cancerous lesions. There are many studies available and ongoing in the treatment of cancer, including breast, prostate and lung cancer, and the potential of this use of pomegranates is building quickly. Much of this research is in Shafer Fox's book.

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• Antioxidant properties

The antioxidant properties of the pomegranate are also effective against other health conditions including atherosclerosis, arterial and heart inflammation and high blood pressure. These properties are also useful for protection of the liver and kidneys from free radical damage, for fighting bacteria and for promoting the activity of other antioxidants.

For the past several years, Israeli researchers, led by Dr Michael Aviram (Lipid Research Laboratory, Rappaport Family Institute for Research in the Medical Sciences, Rambam Medical Center, Haifa), have been focusing on the antioxidant properties as well as the potential cardiovascular benefits of pomegranate juice.⁹ In one study, pomegranate juice was found to reduce atherosclerotic lesion size in apolipoprotein E-deficient mice. An *ex vivo* study with healthy male volunteers found that consumption of 50 mL of concentrated pomegranate juice per day (equal to 8 oz/day of 100% juice) reduced LDL susceptibility to oxidation and increased activity of serum paraoxonase (PON1). Finally, a clinical trial found that consumption of 50 mL of concentrated pomegranate juice per day (equal to 8 oz/day of 100% juice) for two weeks resulted in a 36 per cent decrease in serum angiotensin-converting enzyme (ACE) activity and a five per cent reduction in systolic blood pressure in 10 patients (aged 62 to 77 years) with hypertension. The reviewed study with pomegranate juice is a continuation of their work and hopefully the beginning of new, exciting findings into the cardiovascular health benefits.

• Pomegranates versus arterial plaque and atherosclerosis

A pilot research study involved 19 elderly individuals who had atherosclerosis, or hardening of the arteries, where plaque was already built up to a dangerous level. Ten of the patients drinking just 8 oz of pomegranate juice a day for one year had up to a 30 per cent decrease in the thickness of the lining of their carotid artery, while the control group made up of nine patients who didn't drink the juice actually had an increase of nine per cent. In addition, those who drank the pomegranate juice also had a 21 per cent decrease in their systolic blood pressure.¹⁰

As reported in the August 2006 issue of *Atherosclerosis*: "Pomegranate juice can reduce the risk for atherosclerosis, and thus the risk of death for diabetics, since the condition leads to arterial wall thickening and hardening, and accounts for 80 per cent of deaths for diabetic patients. It also reduces the uptake of bad cholesterol, according to studies at Technion-Israel Institute of Technology..."¹¹

• Benefits for prostate cancer

According to a study of older men published in the 1 July 2006 issue of *Clinical Cancer Research*, pomegranate juice packs a punch on prostate cancer that prolongs post-surgery PSA doubling time, drives down cancer cell proliferation and causes prostate cancer cells to die.¹²

Pomegranate extract may prevent prostate cancer or slow its growth, according to results of lab experiments conducted at the University of Wisconsin in Madison. When human prostate cancer cells were injected into mice, feeding the animals pomegranate extract delayed the appearance of tumours. Tumour

growth was significantly inhibited and survival was prolonged. In men with recurrent prostate cancer, drinking 8 oz/day of pomegranate juice significantly increases the time it takes for an increase in levels of prostate specific antigen (PSA), an indicator of prostate cancer.¹³

• Nitric oxide support

Pomegranate juice was tested for its capacity to protect nitric oxide (NO) against oxidative destruction. Pomegranate juice was found to be a potent inhibitor of superoxide anion-mediated disappearance of NO. It was much more potent than Concord grape juice, blueberry juice, red wine, ascorbic acid and dl-alpha-tocopherol. These observations indicate that pomegranate juice possesses potent antioxidant activity that results in marked protection of nitric oxide against oxidative destruction, thereby resulting in augmentation of the biological actions of NO.¹⁴

• More pomegranate research

In addition to the aforementioned positive studies, details on the following research results can be seen on Dr Ray Sahelian's web page, <http://www.raysahelian.com/pomegranate.html>:

- Pomegranate fruit extracts can block enzymes that contribute to osteoarthritis, slowing the deterioration of cartilage.
- Drinking pomegranate juice during pregnancy may help reduce the risk of brain injuries in babies.
- Pomegranate fruit extract can block skin tumour formation, at least in mice exposed to a cancer-causing agent. Moreover, mice treated with pomegranate developed fewer skin tumours than untreated mice.

- Concentrated pomegranate juice

improves lipid profiles in diabetic patients with hyperlipidaemia and may modify heart disease risk factors.

- Pomegranate juice consumption for three years by patients with carotid artery stenosis reduces common carotid intima-media thickness, blood pressure and LDL oxidation.

- Pomegranate juice may produce positive effects against Alzheimer's disease.

There have been numerous research studies that provide evidence for the positive influence of pomegranate derivatives on high blood pressure, arterial and heart inflammation, kidney and liver protection, and in fighting bacterial diseases.

What to look for in pomegranate products

Most important in choosing pomegranate products, as with any plant extract, is the question of whether any toxic chemicals such as herbicides, pesticides and chemical solvents were used in the cultivation or extraction of the product. The residues of these compounds often remain in the plant material, producing powerful free radicals. As an example of a reliable source, Georgian pomegranates are usually grown wild and harvested from land without such contamination. I understand the Californian Pom Wonderful company is also well respected in terms of its methods of cultivation and extraction. The majority of plant-based nutritional substances are extracted using toxic organic solvents, the residue of which remains on the plant material contained in the product—so, buyer beware!

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The antioxidant properties of the pomegranate are also effective against atherosclerosis, arterial and heart inflammation and high blood pressure.

What's it like to eat a pomegranate?

You can see why the pomegranate was taken on long trips in ancient times and also why it is called "Nature's most labour-intensive fruit"! It is hardy, not given to pests or becoming rotten easily, and it's rather difficult to eat quickly...

Have the experience for yourself. Buy a full, rich, round fruit and open it up. You'll find a labyrinth of white sacs around the groupings of seeds or arils, densely packed with an enticing deep, rich, scarlet colour. Your mouth will be watering by this time... But the peel is tough, as you must be to break it, and then you need to be delicate as you peel away the whitish membranes which hold the seeds. Then are the arils finally exposed, and you can just go at them, dripping red from the mouth, having made sure you are not wearing anything white, or delicate or easily marked. Yes, it's best to be naked while eating a pomegranate! Eat one with a friend, then have your shower. I guarantee you'll have an experience that conjures up the Arabian nights, sensual pleasures, long langourous stories well into the night...

So you see, perhaps you can make this detour into sensuality once a week, but for

breakfast on your way to work you might find that you are better served with the juice from a bottle, juice that unknown workers have lovingly extracted from wildcrafted pomegranates plucked from mountain hillsides. It is my strong recommendation that you find such juice, do yourself a favour and drink a lot of it. And eat the fruit on the weekends!

Endnotes

1. Regardie, Israel, *A Garden of Pomegranates*, Llewellyn Publications, 1992 (first pub. 1932)
2. Wenig, Gaby, "Pomegranates: The Healthy, Spiritual High Holiday Fruit", 19 September 2003, <http://www.jewishjournal.com/home/searchview.php?id=11077>
3. McTaggart, Lynne, *The Field: The Quest for the Secret Force of the Universe*, HarperCollins, UK, 2001
4. Scott-Mumby, Keith, *Virtual Medicine: A New Dimension in Energy Healing*, Thorsons, 1999
5. Seeram, Navindra P., Risa N. Schulman and David Heber (eds), *Pomegranates: Ancient Roots to Modern Medicine*, CRC Press, USA, 2006
6. See <http://www.pomwonderful.com> for a wealth of information about pomegranate

scientific studies.

7. Lansky, E. P., "Beware of Pomegranates Bearing 40% Ellagic Acid", *J. Medicinal Food* 9(1):119-122, March 2006, <http://www.liebertonline.com/doi/abs/10.1089/jmf.2006.9.119>
8. Shaffer Fox, W., *100 & Healthy – Living Longer with Phytomedicines from the Republic of Georgia*, Woodland Pub., USA, 2004
9. *ibid.*
10. http://www.pomwonderful.com/carotid_thickness.html
11. <http://www.seniorjournal.com/NEWS/Nutrition-Vitamins/6-08-24-PomegranateJuice.htm>
12. <http://www.seniorjournal.com/NEWS/Health/6-07-01-PomegranateJuice.htm>
13. <http://www.raysahelian.com/pomegranate.html>
14. Shaffer Fox, *op. cit.*

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